Superior Court of California

County of San Diego

Request for Bid # DA0015-12

Project Description & Response Format

Cisco Nexus Implementation

Issued on September 20, 2011

Bid Due Date: October 19, 2011 at 2:00 PM

Deadline Date for Bid Questions: October 7, 2011 at 2:00 PM

Table of Contents

1 Introduction

1.1 Purpose

The Superior Court of California, County of San Diego ("the Court") is soliciting bids from qualified Vendors for the Cisco Nexus Implementation project to upgrade the Court's Data Center network infrastructure located in two facilities. The primary Data Center is located in the Hall of Justice ("HOJ") and the secondary Data Center is located approximately 15 miles away at Campus Point ("CP"). The Court intends to replace the existing Windows and UNIX server hardware infrastructure over the next 6-18 months. The Court plans to utilize server virtualization as well as one for one server replacement strategies. VMware and Oracle Server virtualization technologies will be used in this project and the Court's Data Center network infrastructure must be upgraded to meet the new requirements.

1.2 Objective

The Court is seeking a Vendor to provide services to upgrade the Court's Data Center network infrastructure that currently resides within the HOJ and CP facilities. The hardware and licensing for the Cisco Nexus Implementation project has already been procured by the Court. The services required for this RFB include design review, installation, configuration of equipment, testing, and training phases. The test phase will include testing failover and redundancy to validate the solution's configuration and design. This infrastructure upgrade will allow the Court to meet future demands for capacity, growth, higher availability, and increase data communications efficiency.

1.3 Bidder Instructions

A) REQUEST FOR QUOTATION DOCUMENTATION

Bidders are to complete and return the following documents:

- Section 3 Response Format and Content
- Unit price SHALL be entered into the appropriate box for each item on the Request for Bid form. Bids submitted without a complete itemization may be rejected.

B) QUOTATION DUE DATE

Quotations must be faxed to (619) 450-7245 or e-mailed to deborah.arnold@sdcourt.ca.gov

by October 19, 2011, at 2:00 PM.

Late bids will not be accepted.

C) INTERPRETATIONS DURING BIDDING

All questions, clarifications or requests for additional information during the bidding period shall be submitted in writing **by 2:00 PM on October 7, 2011** via e-mail to:

deborah.arnold@sdcourt.ca.gov

No oral interpretation shall be made to modify any provisions of any bid specifications herein.

D) AWARD

Award shall be made to the lowest responsive, responsible bidder based on the total cost.

1.4 Minimum Qualifications

- Cisco Certified Gold Partner
- Cisco Certified Managed Services Master Partner
- Experience with network installation and configuration of Cisco Nexus products
- Project Staffing Requirements:
    1. Senior Network Engineers
    2. Cisco Certified
    3. Experience in designing, configuring, building, and implementing the Cisco Nexus 7000, Cisco Nexus 5000, and Cisco Nexus 2000 per the requirements of this RFB
- 10 years of experience in designing, configuring, building, and implementing Cisco based networks for customers similar in size, complexity, and scope of this RFB
- 5 successful deployments consisting of Nexus 7000, 5000, and 2000 hardware
- 3 customers for whom the Vendor has provided similar products and services
- Time Constraint Requirement: Maximum project duration of 90 days after start date

2 Data Center Network Infrastructure

2.1 Wide Area Network (WAN)

The Court's two Data Centers are connected via the Court's existing Gigaman (redundant Gigabit circuits (1 Gbps) that connect each of the Court's main facilities. This is logically depicted in Figure 1 below. There is a pair of 6509 routers that service HOJ and a single Cisco 6513 located at CP. Redundancy is built into the Court's Gigaman network using Hot Standby Routing Protocol ("HSRP").

The BLUE paths shown in Figure 1 are representative of data network and voice traffic.

2.2 Existing Storage Area Network ("SAN") and Existing Data Center Network Infrastructure

The RED paths shown in Figure 1 are representative of the SAN traffic that is localized within each of the two Data Centers. The SAN network is physically separated from the data and voice network within each of the Data Centers and replicated over the Court's Gigaman.

The Court's existing Data Center network infrastructure consists of Cisco 4500 and Cisco 6500 family of Catalyst switches. The HOJ Data Center and the CP Data Center replicate via the Court's redundant Gigaman wide area network.

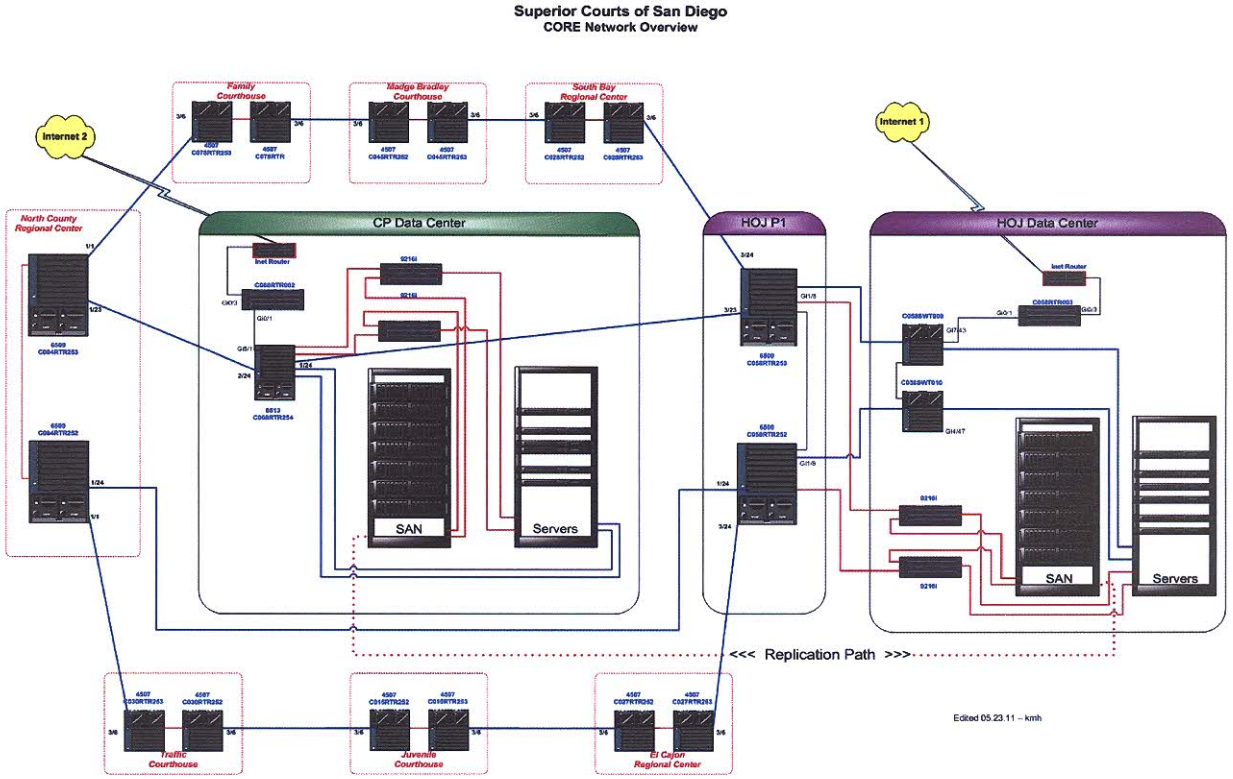

Figure 1 – Logical diagram of Court's Existing SAN and Data Center Infrastructure

2.3 The New SAN and Proposed Nexus Infrastructure Design

The conceptual design of the proposed Nexus infrastructure is shown below in Figure 2. The Vendor must be able to analyze, understand, and configure the Nexus components as shown in Figure 2, by the connectivity paths in GREEN.

The proposed Nexus infrastructure design at HOJ will include two Nexus 7010 devices that will interface the layer 3 core routers in P1 (the Catalyst 6500s) as shown in Figure 2. The existing Catalyst 6500s in P1 will be equipped with 10Gbps modules for layer 2 and layer 3, to trunk in the Nexus 7010 devices for WAN routing. The configuration at CP will be similar, except using one Nexus 7010.

NOTE: There will be no required integration of the existing Hewlett Packard ("HP") Enterprise Virtual Array ("EVA") SAN into the Nexus solution, and there will be no migration of production servers into the proposed Nexus infrastructure as part of this RFB. The Vendor will be required to validate functional connectivity between the two Dell Compellent SANs.

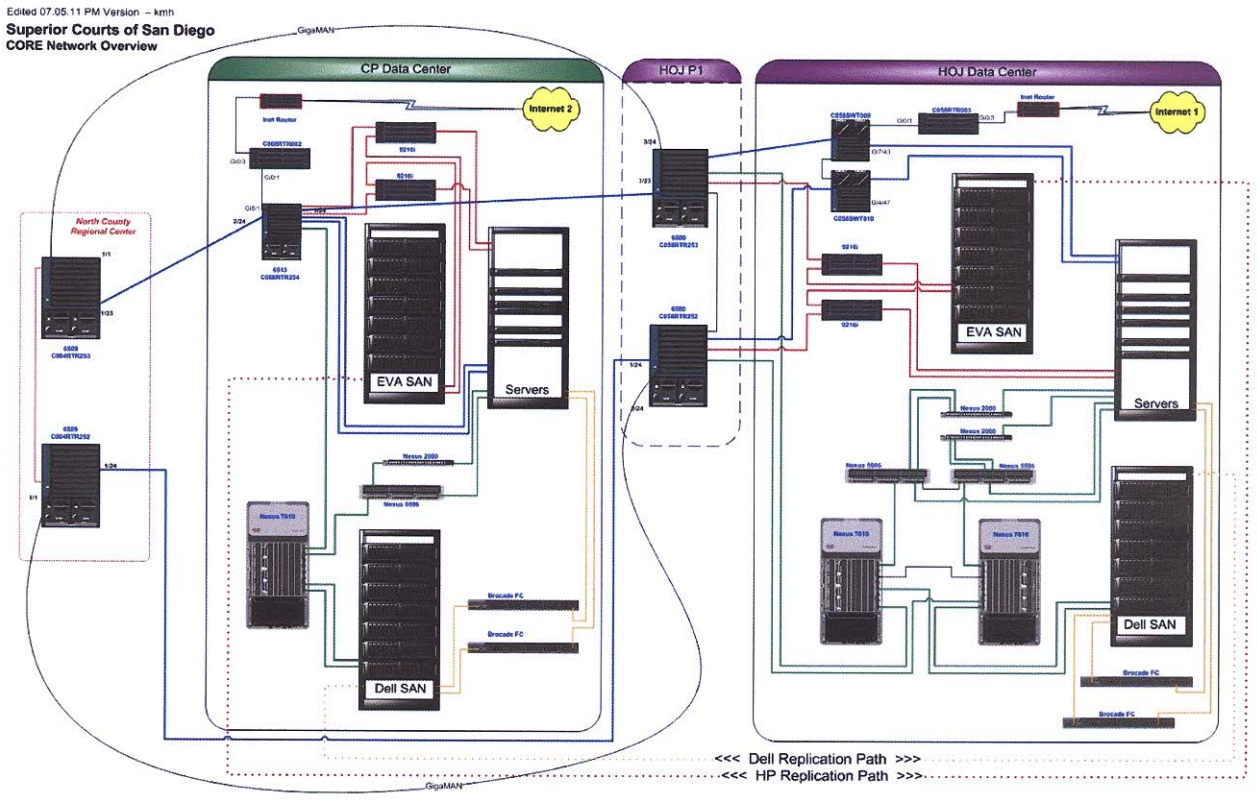

Figure 2 – Logical diagram of the New SAN and Proposed Nexus Infrastructure

3 Response Format and Content

Vendors must respond within the tables provided for each of the sections.

3.1 Executive Summary

The Executive Summary shall be a high-level, general overview of the solution being proposed to meet all of the requirements listed in Section 3.4. If proposed solution is different than that of Figure 2, the Vendor must include a physical and logical diagram. Vendor must also include a description of any potential Single Points of Failure ("SPOF") in the design if such SPOFs exist.

NOTE: Include a description of the project timeline from start to finish once the authorization to proceed has been given. The Vendor is not required to consume the entire 90 day maximum project duration.

3.1 Response:

3.2 Company Background Information

The Court requires the Vendor to provide company information as follows:

1. Company name and address.
2. A short narrative description of the Vendor's organization, including organization charts and indication of company officers where applicable.
3. Headquarters and office locations.
4. Principal type of business.
5. Total number of years in business.
6. Number of years providing services similar in size and scope to those requested in this RFB.

3.2 Response:

3.3 Company References

Provide the names, addresses, and telephone numbers for a minimum of three (3) customers for whom the Vendor has provided and installed a similar Nexus solution within the last three years. The Vendor should include a brief description of the scope of services provided to the customer and the duration of the contract. The Court may contact one or more of the references provided

in order to determine the Vendor's performance record. The Court reserves the right to contact references other than those provided in the bid.

3.3 Response:
Customer Reference 1: Description of Services:
Customer Reference 2: Description of Services:
Customer Reference 3: Description of Services:

3.4 Statement of Work (SOW) Requirements and Cost Proposal Table

The Vendor shall complete and submit the proposed solution that will meet the requirements as defined below, including the associated costs for each section (if costs apply):

NOTE: If the Vendor recommends design improvements as part of Professional Services in Section 3.4a, and that design requires additional hardware or software licensing, those items will be procured under a project change order.

3.4a: Professional Services

Item	Description	Cost
1	a) Design Review and Consultation i. Review Court Proposed Logical Nexus network design including goals and assumptions ii. Review hardware procured to support the Nexus network design iii. Review existing IOS configurations iv. Questions and Answers from Vendor to the Court v. Recommendations from the Vendor vi. Proposed redesign if recommended	
	TOTAL Cost for Item 1 →	$

2	b) Installation (Rack, Stack, and prepare for Setup and Configuration)	
	TOTALCost for Item 2 →	$
3	c) Configuration i. Cisco Nexus 7010 Switches (three total) i. Create up to 4 VDCs per Nexus 7010 1. Data Center 2. Local Area Network 3. Front DMZ 4. Back DMZ ii. Configure Interfaces, Routing, and High Availability (HA) 1. HA will be for HOJ Data Center iii. Configure Overlay Transport Virtualization between the HOJ Data Center and the CP Data Center across the Court's Gigaman iv. Configure Fabric Path v. Prevent the following attack types: 1. DDoS attacks to the 7010 (Control Plane Policing) 2. Spanning-Tree loops (BPDU Guard) 3. MAC floods (Port Security) 4. Broadcast floods (Storm Control) vi. Configure SNMP v3 and Traps vii. Configure Quality of Service viii. Configure, test, and document availability: 1. In Service Software Upgrade 2. Generic Online Diagnostics 3. Embedded Events	

4. Call Home to multiple persons

ix. Configure Syslog, NTP, and other miscellaneous management settings

ii. Cisco Nexus 5596UP Switches (3 total)

i. Configure Interfaces, Routing, and High Availability (HA)

1. HA will be for HOJ Data Center

ii. Configure Fabric Path

iii. Prevent the following attack types:

1. Spanning-Tree loops (BPDU Guard)

2. MAC floods (Port Security)

3. Broadcast floods (Storm Control)

iv. Enable common Error Detection (errdisable)

v. Configure SNMP v3 and Traps

vi. Configure Quality of Service

vii. Configure Syslog, NTP, and other miscellaneous management settings

iii. Configure 2248T Fabric Extenders (12 total FEXs: 8 in HOJ and 4 in CP)

iv. Vendor must configure ports appropriately on the Nexus 7010 devices that will permit the connection of the Court's Dell Compellent SAN for site replication and SAN fail over using iSCSI over the Court's Gigaman network

i. HOJ Nexus infrastructure must be configured and connected to the following existing equipment

1. Two core Catalyst 6509s located in HOJ via 10Gb Ethernet, which manages the VLANs and the routing throughout the Court (except for CP)

2. The Court's Dell Compellent SAN located in HOJ will use iSCSI to negotiate with the Dell Compellent SAN located at CP

3. One core Catalyst 6513 located in CP (1Gb Ethernet, not 10Gb Ethernet), which manages the VLANs and the routing for the site at CP

	4. The Court's Dell Compellent SAN located in CP will use iSCSI to negotiate with the Dell Compellent SAN located at HOJ ii. Configure management access to two Court staff and its designees d) Knowledge Transfer i. Vendor will provide the Court and their designated representatives with training and knowledge transfer as follows: i. Conduct up to three (3) days of training and knowledge transfer ii. Review all deliverables with the Court's engineering team e) Documentation i. Vendor will provide both the original build, and as-built documentation before final acceptance detailing the Nexus configuration as well as network diagrams	
	TOTAL Cost for Item 3 →	$
	TOTAL Cost for Section 3.4a (add Items 1, 2, and 3) →	$

3.4b: Maintenance & Support

Item	Description	Cost
1	Vendor must provide a twelve (12) month warranty on all initial IT configuration services	
	TOTAL Cost for Section 3.4b →	$

3.5 Cost Proposal Summary Table

Vendor must fill out the summary table below by transferring the total costs from Section 3.4a and 3.4b:

	Description	Cost
TOTAL Cost for Section 3.4a	Professional Services	$
TOTAL Cost for Section 3.4b	Maintenance & Support	$
(Add TOTAL Cost for Sections 3.4a and 3.4b) **TOTAL RFB PRICE →**		$

3.6 Assumptions

The Vendor shall provide a list if any assumptions that the Court must be made aware of as it pertains to the pricing provided or any of the services being requested. The Court may require further clarification if such assumptions incur major risk to the successful completion of this project. Use this section to also identify any assumptions applicable to Appendix A.

3.6 Response: